

National Institute
of Standards and Technology



National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ANSI/NCSL Z540-1-1994
ISO 9002:1987

Scope of Accreditation



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CALIBRATION LABORATORIES

NVLAP LAB CODE 200301-0

INSTRON FIELD CALIBRATION LABORATORY

100 Royall Street

Canton, MA 02021

Dr. Anatoly Perlov

Phone: 781-575-5479 Fax: 781-575-5767

E-Mail: anatoly_perlov@intron.com

URL: <http://www.intron.com>

DIMENSIONAL

NVLAP Code: 20/D05

Length

Range	Best Uncertainty (\pm) ^{note 2}	Remarks
Field Service Calibration of Strain:		
0.5 in (12.5 mm) to 4.0 in (100 mm)	0.5% of measured value but not less than 50 μ in	Gage Length
>0 to 10 in (254 mm)	0.5% of measured value but not less than 50 μ in	Displacement

March 31, 2001

Effective through

David T. Alderman

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MECHANICAL

NVLAP Code: 20/M06
Field Service Calibration of Force

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 2}</i>	<i>Remarks</i>
1 gram to 500 ton (0.01 N to 5MN)	0.125% of applied force	Compression
1 gram to 150 ton (0.01 N to 1.5 MN)	0.125% of applied force	Tension

NVLAP Code: 20/M13
Field Service indirect verification of hardness testing machines.

<i>Hardness Scale and Range</i>	<i>Best Uncertainty (\pm) in Rockwell Points^{note 1,2}</i>	<i>Remarks</i>
HRA Steel Scale		
80 & Above	0.25	
Below 80	0.42	
HRB Scale		
45 & Above	0.57	
Below 45	0.83	
HRC Scale		
60 & Above	0.26	
Below 60	0.33	
HRD Scale		
70.7 & Above	0.26	
Below 70.7	0.42	

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HRD Scale

70.7 & Above	0.26
Below 70.7	0.42

HRE Scale

57-100	0.58
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HRF Scale

57-100	0.60
--------	------

HRG Scale

82.5 & Above	0.45
Below 82.5	0.61

HRH Scale

87-100	0.58
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HRK Scale

21-100	0.58
--------	------

HRL Scale

100-130	0.61
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HRM Scale

80-130	0.60
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HR15N Scale

90 & Above	0.45
Below 90	0.53

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HR45N Scale

66.5 & Above	0.48
Below 66.5	0.48

HRP Scale

57-100	0.60
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HRR Scale

100-125	0.42
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HRS Scale

100-125	0.45
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HR15T Scale

75.3 & Above	0.60
Below 75.3	0.60

HRT30T Scale

46.2 & Above	0.58
Below 17.6	0.58

HR45T Scale

17.6 & Above	0.61
Below 17.6	0.61

HRV Scale

90-110	0.42
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HR15W Scale

70-100	0.61
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HR15W Scale	
70-100	0.61
HR30W Scale	
45-96	0.60
HR45W Scale	
25-91	0.60
HR15X Scale	
80-100	0.58
HR30X Scale	
65-100	0.60
HR45X Scale	
50-95	0.61
HR15Y Scale	
85-100	0.58
HR30Y Scale	
80-100	0.60
HR45Y Scale	
66-106	0.58

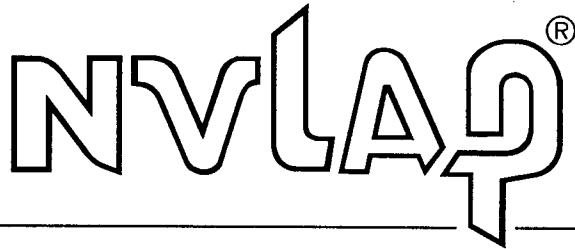
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1. The standardized test blocks used for verification are calibrated at the Wilson Hardness Calibration Laboratory in accordance with ASTM E18-98 section C using N.I.S.T. Rockwell HRC standard reference materials (SRM) 2810, 2811, and 2812. All other Rockwell scales are traceable to Wilson hardness levels thru laboratory standardizing machines. The standardizing machines are directly verified according to ASTM E18-98 using devices that are traceable to N.I.S.T. either directly or through a NVLAP approved laboratory.
2. Represents an expanded uncertainty using a coverage factory, $k=2$.

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A handwritten signature in black ink that reads "David T. Alderman".

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